

# COLUMNAR SECTION SHEET

GENERALIZED SECTION OF THE SEDIMENTARY ROCKS OF THE CRANBERRY QUADRANGLE.						
SCALE: 1 INCH = 1000 FEET.						
PERIOD.	FORMATION NAME.	SYMBOL.	COLUMNAR SECTION.	THICKNESS IN FEET.	CHARACTER OF ROCKS.	CHARACTER OF TOPOGRAPHY AND SOIL.
CAMBRIAN	Watauga shale.	Cw		1000-1100	Purplish, reddish-brown, and yellow shales, sandy shales, and thin sandstones, with calcareous shales and thin blue limestones interbedded.	Valleys with irregular rounded knobs. Purplish and brown clay soils.
	Shady limestone.	Csh		750-800	Gray, bluish-gray, and mottled-gray limestone, with nodules and masses of black chert.	Smooth, rounded hills and smooth, open valleys. Deep, red clay soil containing chert masses.
	Erwin quartzite.	Ce		500-700	Massive white quartzite and sandstone.	Mountains with sharp crests and steep, rocky slopes and cliffs. Thin, sandy soil.
	Hampton shale.	Cht		600-800	Bluish-gray and gray argillaceous and sandy shales, with thin sandstone layers.	Narrow depressions and valleys between quartzite mountains. Thin, sandy clay soil.
	Unicoi formation. Amygdaloidal basalt.	Cn Ca		1500-2500	Massive white sandstone, feldspathic sandstone, and quartzite, with interbedded shales and sandy shales in the upper part, a thin bed of amygdaloid near the middle, and conglomerate, arkose, and graywacke in the lower part.	High mountains with steep, rocky slopes and lines of cliffs. Light, sandy soil of considerable depth along summits.
PRE-CAMBRIAN	UNCONFORMITY. Gneisses, granites, and ancient volcanic rocks.				Descriptions given in table below.	Descriptions given in table below.

GENERALIZED TABLE OF THE IGNEOUS AND ANCIENT CRYSTALLINE ROCKS OF THE CRANBERRY QUADRANGLE, ARRANGED ACCORDING TO AGE.					
SCALE: 1 INCH = 1000 FEET.					
PERIOD.	FORMATION NAME.	SYMBOL.	LITHOLOGIC SYMBOL.	CHARACTER OF ROCKS.	CHARACTER OF TOPOGRAPHY AND SOIL.
JURA- TRIAS	Bakersville gabbro.	Jb		Massive black and brown gabbro and diabase dikes and sheets.	Small knobs and buttes, with many rock exposures. Yellow and brown clay soils.
	Metarhyolite.	Amr		Bluish- and blackish-gray rhyolite-porphry and banded metarhyolite, schistose and massive.	Low ground and irregular knobs. Red and brown clay soils.
ALGONKIAN	Flattop schist.	Af		Bluish- and greenish-gray and black banded and porphyritic schists.	High, irregular ridges and rounded mountains. Deep, red and brown clay soils.
	Montezuma schist.	Am		Bluish-green and green epidotic and chloritic schists, with large masses of epidote and beds of amygdaloid.	High ridges and mountains with round tops and in places cliffs and sharp crests. Deep, red clay soil containing epidote boulders.
	Linville metadiabase.	Al		Coarse, green metadiabase and metagabbro, schistose and massive.	Valleys and small depressions. Brown clay soil.
	Beech granite.	Ab		Very coarse biotite-granite, massive and schistose, in places coarsely porphyritic; color usually light, but frequently red near the border.	High mountains with broad crests and many ledges and cliffs. Brown sandy and clayey soils.
ARCHEAN	Blowing Rock gneiss.	Abbr		Coarse, porphyritic biotite-gneiss and granite-gneiss, with interbedded, fine, schistose granite and mica-schist; color dark gray and black.	Mountains and high ground, with rounded summits and many large ledges and cliffs. Brown sandy and clayey soils.
	Cranberry granite.	Abc		Biotite-granite and granite-gneiss, coarse and fine, with a little hornblende-granite; colors light gray, dark gray, or red. Includes many dikes of schistose and unaltered diabase and metarhyolite.	Mountains and high ground, with irregular divides and rounded, uneven surfaces. Red, yellow, and brown sandy and clayey soils.
	Soapstone.	As		Soapstone, often containing much hornblende and tremolite, and a little serpentine and dunite.	Small knolls covered with ledges and boulders. Thin, yellow clay soil.
	Roan gneiss.	Ar		Hornblende-gneiss and schist, with much massive and schistose diorite, in places porphyritic. Includes many beds of mica-gneiss and schist, dikes of diabase, and a little gneissoid granite.	High mountains and ridges, with broad, round summits, steep slopes, and a few rocky crests. Deep, red and brown clay soils containing many rock fragments.
	Carolina gneiss.	Ac		Interbedded mica-gneiss and mica-schist, coarse and fine, bluish gray, gray, and white, containing many beds of fine granitoid gneiss, schistose granite, hornblende-granite, diorite, hornblende-gneiss, and garnet-schist.	Mountains and ridges, with steep slopes and rounded surfaces. Thin, sandy and micaceous soils.

ARTHUR KEITH,  
Geologist.